

AMENDMENTS TO THE CLAIMS

For the convenience of the Examiner, all claims have been presented whether or not an amendment has been made. The claims have been amended as follows:

What is claimed is:

1. **(Currently Amended)** A method for reorganizing data, comprising:
reading each record of a source file associated with an object;
writing each record to a destination file;
identifying changes to the object that are made during a reorganization process;
for each change, determining whether the change affects the reorganization process;
~~creating a log file comprising log records, wherein the log records are associated with only those changes that are determined to affect the reorganization process, the contents of the log file being limited to a subset of all log records, each log record associated with a change to be made to the destination file;~~
reading each log record of the log file;
processing each record of the log file to effect the associated change to the destination file; and
replacing the source file with the destination file.
2. **(Original)** A method according to claim 1 wherein the source file is an index file.
3. **(Original)** A method according to claim 1 wherein the source file is a data file.
4. **(Original)** A method according to claim 1 wherein the step of creating a log file is performed in accordance with instructions of a DBMS log routine.
5. **(Original)** A method according to claim 4 wherein the log file contains a subset of all records processed by the DBMS log routine.

6. **(Original)** A method according to claim 4 wherein the log file records are selected based on a program call established by a reorganization utility.

7. **(Original)** A method according to claim 6 wherein the program call is removed prior to termination of the reorganization utility.

8. **(Original)** A method for logging changes by a database management system, comprising:

identifying a change to be logged, wherein the change occurs during a reorganization process;

creating a log record based on the change;

determining whether the change affects a the reorganization process;

storing the log record in a first log file recording selected changes only if the change is determined to affect affects the reorganization process; and

storing the log record in a second log file if the change is not determined to affect the reorganization process recording all changes.

9. **(Original)** A method according to claim 8 wherein the first log file resides in virtual storage.

10. **(Original)** A method according to claim 8 wherein the first log file resides in dataspace.

11. **(Currently Amended)** A method according to claim 8 wherein the first log file resides in hyperspace hiperspace.

12. **(Original)** A method according to claim 8 wherein the first log file resides in DASD.

13. **(Currently Amended)** An apparatus for reorganizing data, comprising:
means for reading each record of a source file associated with an object;
means for writing each record to a destination file;
means for identifying changes to the object that are made during a reorganization process;
means for determining whether each change affects the reorganization process;
means for creating a log file comprising log records, wherein the log records are associated with only those changes that are determined to affect the reorganization process, the contents of the log file being limited to a subset of all log records, each log record associated with a change to be made to the destination file;
means for reading each log record of the log file;
means for processing each record of the log file to effect the associated change to the destination file; and
means for replacing the source file with the destination file.
14. **(Original)** An apparatus according to claim 13 wherein the source file is an index file.
15. **(Original)** An apparatus according to claim 13 wherein the source file is a data file.
16. **(Original)** An apparatus according to claim 13 wherein the log file is created in accordance with instructions of a DBMS log routine.
17. **(Original)** An apparatus according to claim 16 wherein the log file contains a subset of all records processed by the DBMS log routine.
18. **(Original)** An apparatus according to claim 16 wherein the log file records are selected based on a program call established by a reorganization utility.
19. **(Original)** An apparatus according to claim 18 wherein the program call is

removed prior to termination of the reorganization utility.

20. **(Currently Amended)** An apparatus for reorganizing data, comprising:
 - a processor;
 - a memory connected to said processor storing a program to control the operation of said processor;
 - the processor operative with the program in the memory to:
 - read each record of a source file associated with an object;
 - write each record to a destination file;
 - identify changes to the object that are made during a reorganization process;
 - for each change, determine whether the change affects the reorganization process;
 - create a log file comprising log records, wherein the log records are associated with only those changes that are determined to affect the reorganization process, the contents of the log file being limited to a subset of all log records, each log record associated with a change to be made to the destination file;
 - read each log record of the log file;
 - process each record of the log file to effect the associated change to the destination file; and
 - replace the source file with the destination file.

21. **(Original)** An apparatus according to claim 20 wherein the source file is an index file.

22. **(Original)** An apparatus according to claim 20 wherein the source file is a data file.

23. **(Original)** An apparatus according to claim 20 wherein the processor is further operative with the program in the memory to create the log file in accordance with instructions of a DBMS log routine.

24. **(Original)** An apparatus according to claim 23 wherein the log file contains a subset of all records processed by the DBMS log routine.

25. **(Original)** An apparatus according to claim 20 wherein the processor is further operative with the program in the memory to select the log file records based on a program call established by a reorganization utility.

26. **(Original)** An apparatus according to claim 23 wherein the processor is further operative with the program in the memory to remove the program call prior to termination of the reorganization utility.

27. **(Currently Amended)** A computer-readable storage medium encoded with processing instructions for implementing a method for reorganizing data, the processing instructions for directing a computer to perform the steps of:

reading each record of a source file associated with an object;
writing each record to a destination file;
identifying changes to the object that are made during a reorganization process:

for each change, determining whether the change affects the reorganization process:

creating a log file comprising log records, wherein the log records are associated with only those changes that are determined to affect the reorganization process, the contents of the log file being limited to a subset of all log records, each log record associated with a change to be made to the destination file;

reading each log record of the log file;
processing each record of the log file to effect the associated change to the destination file; and replacing the source file with the destination file.

28. **(Currently Amended)** A method for reorganizing data, comprising:
creating an empty destination file;
establishing a program call to ~~copy selected~~ process log records during reorganization;

reading each record of a source file associated with an object;
~~writing each record to the destination file, thereby creating a reorganized copy of the source file;~~
identifying changes to the object that are made during a reorganization process;
for each change, determining whether the change affects the reorganization process;
~~employing the established program call to create a log file comprising log records, wherein the log records are associated with only those changes that are determined to affect the reorganization process, the contents of the log file being limited to a subset of all log records, each log record associated with a change to be made to the destination file;~~
removing the established program call;
reading each log record of the log file;
processing each record of the log file to effect the associated change to the destination file; and
replacing the source file with the destination file.

29. **(Previously Presented)** A method according to claim 28 wherein the source file is an index file.

30. **(Previously Presented)** A method according to claim 28 wherein the source file is a data file.

31. **(Currently Amended)** An apparatus for reorganizing data, comprising:
means for creating an empty destination file;
means for establishing a program call to ~~copy selected process~~ log records
~~during reorganization~~;
means for reading each record of a source file associated with an object;
means for writing each record to the destination file, ~~thereby creating a~~
~~reorganized copy of the source file~~;
mean for identifying changes to the object that are made during a
reorganization process;
means for determining whether each change affects the reorganization
process;
means for employing the established program call to create a log file
comprising log records, wherein the log records are associated with only those
changes that are determined to affect the reorganization process, the contents of
the log file being limited to a subset of all log records, each log record associated with
~~a change to be made to the destination file~~;
means for removing the established program call;
means for reading each log record of the log file;
means for processing each record of the log file to effect the associated change
to the destination file; and
means for replacing the source file with the destination file.

32. **(Previously Presented)** An apparatus according to claim 31 wherein the source file is an index file.

33. **(Previously Presented)** An apparatus according to claim 31 wherein the source file is a data file.

34. **(Currently Amended)** An apparatus for reorganizing data, comprising:
- a processor;
- a memory connected to said processor storing a program to control the operation of said processor;
- the processor operative with the program in the memory to:
- create an empty destination file;
- establish a program call to ~~copy selected process~~ log records during reorganization;
- read each record of a source file associated with an object;
- write each record to the destination file, ~~thereby creating a reorganized copy of the source file~~;
- identify changes to the object that are made during a reorganization process;
- for each change, determine whether the change affects the reorganization process;
- employ the established program call to create a log file comprising log records, wherein the log records are associated with only those changes that are determined to affect the reorganization process, the contents of the log file being limited to a subset of all log records, each log record associated with a change to be made to the destination file;
- remove the established program call;
- read each log record of the log file;
- process each record of the log file to effect the associated change to the destination file; and
- replace the source file with the destination file.

35. **(Previously Presented)** An apparatus according to claim 34 wherein the source file is an index file.

36. **(Previously Presented)** An apparatus according to claim 34 wherein the source file is an data file.

37. **(Currently Amended)** A computer-readable storage medium encoded with processing instructions for implementing a method for reorganizing data, the processing instructions for directing a computer to perform the steps of:

- creating an empty destination file;
- establishing a program call to ~~copy selected process~~ log records during ~~reorganization~~;
- reading each record of a source file associated with an object;
- writing each record to the destination file, ~~thereby creating a reorganized copy of the source file~~;
- identifying changes to the object that are made during a reorganization process;
- for each change, determining whether the change affects the reorganization process;
- employing the established program call to create a log file comprising log records, wherein the log records are associated with only those changes that are determined to affect the reorganization process, ~~the contents of the log file being limited to a subset of all log records, each log record associated with a change to be made to the destination file~~;
- removing the established program call;
- reading each log record of the log file;
- processing each record of the log file to effect the associated change to the destination file; and
- replacing the source file with the destination file.